

Land Capability Classification

The land capability classification system is used to show, in a general way, the suitability of soils for cropland. It is a three-category interpretative system. The two highest categories, class and subclass, give broad perspective of the suitability of map units for certain crops or pasture. These categories indicate the degree and kinds of limitations for these uses. The system evaluates soils for mechanized farming systems that produce the more common cultivated field crops, such as corn, small grains, cotton, hay, and field grown vegetables.

Capability Class

The highest category of the system is the capability class. The capability classes are groups of soils that have the same general suitability for the broad kinds of use common on farms and ranches. There are eight classes designated by Roman numerals I through VIII.

Classes I, II, III, and IV are suitable for mechanized production of common field crops if properly managed, and for production of pasture and woodland. The degree of limitation for production of cultivated crops increases progressively for class I to class IV. Limitations may affect production as well as the risk of permanent soil deterioration, as by erosion.

Classes V, VI, and VII are generally not suited to mechanized production of common field crops without special management, but are suitable for permanent cover such as grasses and trees. The severity of the soil limitations for crops increases from class V to class VII. Areas in class VIII are generally not suitable for crops, pasture, or wood products without management that is impractical. Class VIII areas may have potential for other uses, such as recreation or wildlife habitat.

Capability Subclass

The subclass identifies the dominant kind of limitation in the class. They are designated by adding a small letter, e, w, s, or c, to the class numeral, for example, IIe. The letter e shows that the main limitation is risk of erosion unless a close-growing plant cover is maintained; w shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); s shows that the soil is limited mainly because it is shallow, droughty, or stony; and c, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

There are no subclasses in class I because the soils of this class have few limitations. The soils in class V are subject to little or no erosion, but they have other limitations that restrict their use mainly to pasture, woodland, wildlife habitat, or recreation. Class V contains only the subclasses indicated by w, s, or c.

Capability Unit

The lowest category of the capability system is the capability unit. Capability units are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Units are designated by Arabic numerals, for example IIe-2. This category is not used in all soil surveys.

Crop Yield Estimates

The average yields per acre that can be expected of the principal crops under a high level of management are presented in the following table. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations are also considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, or green manure crops; and harvesting that insures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change. Absence of a yield indicates that the soil is not suited to the crop or the crop is generally not grown on the soil.

Land Capability and Yields per Acre of Crops

Kennebec County, Maine

Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil.

Map Symbol and Soil Name	Land Capability	Corn Silage Tons	Irish Potatoes Cwt	Oats Bu
BhB: Berkshire	2e	22.00	330.00	---
BkB: Berkshire	6s	---	---	---
BkC: Berkshire	6s	---	---	---
BkD: Berkshire	6s	---	---	---
Bo: Biddeford	5w	---	---	---
BuB2: Buxton	3w	22.00	---	---
BuC2: Buxton	4e	20.00	---	---
C.F.: Cut And Fill Land	---	---	---	---
D.L.: Dune Land	8e	---	---	---
DeB: Deerfield	2w	16.00	---	60.00
G.P.: Gravel Pits	8s	---	---	---
Ha: Hadley	1	28.00	360.00	---

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Land Capability and Yields per Acre of Crops

Kennebec County, Maine

Map Symbol and Soil Name	Land Capability	Corn Silage	Irish Potatoes	Oats
		Tons	Cwt	Bu
HfC: Hartland	3e	---	360.00	80.00
HfD: Hartland	4e	19.00	---	70.00
HkB: Hinckley	3s	12.00	---	---
HkC: Hinckley	4e	---	---	---
HkD: Hinckley	6e	---	---	---
HrB: Hollis	3e	15.00	---	---
HrC: Hollis	4e	14.00	---	---
HrD: Hollis	6e	---	---	---
HtB: Hollis	6s	---	---	---
HtC: Hollis Rock Outcrop	6s 8s	---	---	---
HtD: Hollis Rock Outcrop	7s 8s	---	---	---
Lk: Limerick	4w	---	---	---

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Land Capability and Yields per Acre of Crops

Kennebec County, Maine

Map Symbol and Soil Name	Land Capability	Corn Silage	Irish Potatoes	Oats
		Tons	Cwt	Bu
LyB: Lyman	3e	14.00	---	---
LyC: Lyman	4e	12.00	---	---
LyD: Lyman	6e	---	---	---
LzC: Lyman	6s	---	---	---
Rock Outcrop	8s			
M.L.: Made Land	8s	---	---	---
MoA: Monarda	4w	14.00	---	---
MrA: Monarda	7s	---	---	---
PbB: Paxton	2e	24.00	330.00	---
PbC: Paxton	3e	22.00	300.00	---
PcB: Paxton	6s	---	---	---
PcC: Paxton	6s	---	---	---
PcD: Paxton	6s	---	---	---

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Land Capability and Yields per Acre of Crops

Kennebec County, Maine

Map Symbol and Soil Name	Land Capability	Corn Silage	Irish Potatoes	Oats
		Tons	Cwt	Bu
PdB: Paxton Charlton	2e 2e	24.00	330.00	---
PdC2: Paxton Charlton	3e 3e	22.00	300.00	---
PdD2: Paxton Charlton	4e 4e	18.00	---	---
PeB: Paxton Charlton	6s 6s	---	---	---
PeC: Paxton Charlton	6s 6s	---	---	---
PeD: Paxton Charlton	6s 6s	---	---	---
PfB: Peru	2e	20.00	270.00	---
PkB: Peru	6s	---	---	---
PkC: Peru	6s	---	---	---
RcA: Ridgebury	4w	16.00	---	---
RdA: Ridgebury	7s	---	---	---

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Land Capability and Yields per Acre of Crops

Kennebec County, Maine

Map Symbol and Soil Name	Land Capability	Corn Silage	Irish Potatoes	Oats
		Tons	Cwt	Bu
Rf: Rifle	6w	---	---	---
SA: Saco	6w	---	---	---
ScA: Scantic	4w	---	---	---
Sd: Scarboro	5w	---	---	---
SkB: Scio	2e	24.00	270.00	70.00
SkC2: Scio	3e	22.00	240.00	60.00
SuC2: Suffield	4e	18.00	---	---
SuD2: Suffield	6e	---	---	---
SuE2: Suffield	7e	---	---	---
To: Togus	8w	---	---	---
Va: Vassalboro	8w	---	---	---
W: Water	---	---	---	---
WmB: Windsor	3s	14.00	---	---

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Land Capability and Yields per Acre of Crops

Kennebec County, Maine

Map Symbol and Soil Name	Land Capability	Corn Silage	Irish Potatoes	Oats
		Tons	Cwt	Bu
WmC: Windsor	4e	12.00	---	---
WmD: Windsor	6e	---	---	---
Wn: Winooski	2w	26.00	330.00	---
WrB: Woodbridge	2e	24.00	270.00	---
WrC: Woodbridge	3e	22.00	240.00	---
WsB: Woodbridge	6s	---	---	---
WsC: Woodbridge	6s	---	---	---

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